

CLAIMS:

1. A lighting device which comprises a light emission surface and a plurality of substantially point-shaped light sources, and which is characterized by an optical waveguide plate (1) into which a plurality of cavities (20) is provided, each cavity (20) accommodating a light source (21), which cavities each comprise an upper side (203) facing the light emission surface (11) and side walls (201), said upper side (203) being covered with a first reflecting layer (204), while the coupling of the light into the optical waveguide plate takes place through the side walls (201).

2. A lighting device as claimed in claim 1, characterized in that the side walls (201) of the cavities (20) are substantially perpendicular to the light emission surface (11), and the upper sides (203) of the cavities (20) are substantially parallel to the light emission surface (11).

3. A lighting device as claimed in claim 1, characterized in that the cavities (20) are each covered with a second reflecting layer (121) on their lower side opposite to their upper side (203).

4. A lighting device as claimed in claim 1, characterized in that the cavities (20) are substantially cylindrical in shape.

5. A lighting device as claimed in claim 1, characterized in that the cavities (20) are provided in the lower side (12) of the optical waveguide plate (1).

6. A lighting device as claimed in claim 1, characterized in that the light sources (21) are light-emitting diodes.

7. A lighting device as claimed in claim 3, characterized in that the second reflecting layer (121) extends over the side faces (13 to 16) and the lower side (12) of the optical waveguide plate (1).

10050260.011603

8. A lighting device as claimed in claim 7, characterized in that the second reflecting layer (121) is at a distance from the optical waveguide plate (1), which distance constitutes an air gap.

5

9. A lighting device as claimed in claim 1, characterized in that the first reflecting layer (204) extends further in horizontal direction with a first portion (204a) into the optical waveguide plate (1).

10 10. A lighting device as claimed in claim 1, characterized in that the first reflecting layer (204) extends further with a second portion (204b) along the side walls (201) of the cavity (20).

11. A lighting device as claimed in claim 1, characterized in that the edges of the
15 cavities (20) situated opposite the upper side (203) are surrounded by a third reflecting layer (205).

12. A liquid crystal display device with a lighting device as claimed in any one of the preceding claims.

10050260 11.16.03